```
(FILE 'HOME' ENTERED AT 20:55:38 ON 19 MAY 2000)
     FILE 'MEDLINE, CAPLUS, SCISEARCH, BIOSIS, USPATFULL' ENTERED AT 20:56:03
     ON 19 MAY 2000
L1
          12136 S SPA OR SCINTILLATION PROXIMITY ASSAY
L2
          12136 S SPA OR (SCINTILLATION PROXIMITY ASSAY)
L3
              0 S L2 (P) CHARGE CHARGE
              0 S L2 (P) CHARGE-CHARGE
T.4
              3 S L2 (P) (CHARG? (3A) INTERACT?)
T.5
              1 DUP REM L5 (2 DUPLICATES REMOVED)
1.6
L7
             22 S L2 (P) ELECTROSTATIC
             14 DUP REM L7 (8 DUPLICATES REMOVED)
1.8
     FILE 'STNGUIDE' ENTERED AT 21:00:23 ON 19 MAY 2000
L9
              O S SCINTILLATION PROXIMITY ASSAY
     FILE 'MEDLINE, CAPLUS, SCISEARCH, BIOSIS, USPATFULL' ENTERED AT 21:01:28
     ON 19 MAY 2000
            748 S SCINTILLATION PROXIMITY ASSAY
L10
              6 S L10 (P) CHARG?
L11
              3 DUP REM L11 (3 DUPLICATES REMOVED)
L12
     FILE 'STNGUIDE' ENTERED AT 21:02:27 ON 19 MAY 2000
     FILE 'MEDLINE, CAPLUS, SCISEARCH, BIOSIS, USPATFULL' ENTERED AT 21:03:18
     ON 19 MAY 2000
L13
             22 S L10 (P) (POSITIVE OR NEGATIVE)
L14
             28 S L10 (P) (POSITIV? OR NEGATIV? OR CATIO? OR ANIO?)
L15
             16 DUP REM L14 (12 DUPLICATES REMOVED)
     FILE 'STNGUIDE' ENTERED AT 21:05:30 ON 19 MAY 2000
     FILE 'STNGUIDE' ENTERED AT 21:05:52 ON 19 MAY 2000
     FILE 'MEDLINE, CAPLUS, SCISEARCH, BIOSIS, USPATFULL' ENTERED AT 21:09:49
     ON 19 MAY 2000
              0 S L10 (P) ADSORB?
L16
             20 S L10 AND ADSORB?
L17
             20 DUP REM L17 (O DUPLICATES REMOVED)
L18
                E BROPHY G?/IN
L19
              4 S E4-E6
                E BROPHY G?/IN, AU
L20
             25 S E4-14
             23 DUP REM L20 (2 DUPLICATES REMOVED)
L21
              4 S L21 AND L10
L22
L23
            181 S L10 AND KINASE
             81 S L10 (P) KINASE
L24
             46 S L24 NOT STREPTAVIDIN
L25
L26
             26 DUP REM L25 (20 DUPLICATES REMOVED)
     FILE 'STNGUIDE' ENTERED AT 21:26:14 ON 19 MAY 2000
     FILE 'MEDLINE, CAPLUS, SCISEARCH, BIOSIS, USPATFULL' ENTERED AT 21:26:36
     ON 19 MAY 2000
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FILE 'STNGUIDE' ENTERED AT 21:26:37 ON 19 MAY 2000

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FILE 'MEDLINE, CAPLUS, SCISEARCH, BIOSIS, USPATFULL' ENTERED AT 21:27:13
     ON 19 MAY 2000
     FILE 'STNGUIDE' ENTERED AT 21:27:13 ON 19 MAY 2000
     FILE 'STNGUIDE' ENTERED AT 21:27:19 ON 19 MAY 2000
     FILE 'STNGUIDE' ENTERED AT 21:32:11 ON 19 MAY 2000
L27
              0 S L10 (P) DERIVAT?
     FILE 'MEDLINE, CAPLUS, SCISEARCH, BIOSIS, USPATFULL' ENTERED AT 21:34:41
     ON 19 MAY 2000
L28
             19 S L10 (P) DERIVAT?
L29
              0 S L10 (P) (DERIVAT? (6A) SURFAC?)
L30
             11 DUP REM L28 (8 DUPLICATES REMOVED)
     FILE 'STNGUIDE' ENTERED AT 21:37:34 ON 19 MAY 2000
L31
              0 S L10 AND ELECTROSTATIC
     FILE 'MEDLINE, CAPLUS, SCISEARCH, BIOSIS, USPATFULL' ENTERED AT 21:43:07
     ON 19 MAY 2000
L32
              3 S L10 AND ELECTROSTATIC
L33
              3 DUP REM L32 (O DUPLICATES REMOVED)
     FILE 'MEDLINE, CAPLUS, SCISEARCH, BIOSIS, USPATFULL' ENTERED AT 21:47:15
     ON 19 MAY 2000
L34
            735 S KINASE (P) SOLID (P) PHOSPHORYL?
              2 S L34 AND L10
L35
              2 S L34 AND ELECTROSTATIC
L36
            303 S OCTADECYL SULFATE
L37
             0 S L37 AND L10
L38
L39
             33 S L10 AND CHARGED
              2 S L10 AND POLYANIO?
L40
              7 S L10 AND POLYLYS?
L41
              7 DUP REM L41 (O DUPLICATES REMOVED)
L42
     FILE 'STNGUIDE' ENTERED AT 21:58:08 ON 19 MAY 2000
     FILE 'MEDLINE, CAPLUS, SCISEARCH, BIOSIS, USPATFULL' ENTERED AT 22:02:25
     ON 19 MAY 2000
L43
              6 S L10 AND (SURFACE (6A) ADSORB?)
L44
              6 DUP REM L43 (0 DUPLICATES REMOVED)
L45
           3885 S PEPTIDE (P) ELECTROSTATIC
           1309 S L45 (P) (SOLID OR SURFACE OR BEAD OR WELL)
L46
L47
            593 S L46 (P) (ASSAY OR MEASUR? OR DETERMIN?)
L48
            316 S L46 (P) (ASSAY OR MEASUR?)
L49
             60 S L46 (P) ASSAY
L50
             27 DUP REM L49 (33 DUPLICATES REMOVED)
     FILE 'STNGUIDE' ENTERED AT 22:12:42 ON 19 MAY 2000
     FILE 'STNGUIDE' ENTERED AT 22:15:31 ON 19 MAY 2000
     FILE 'MEDLINE, CAPLUS, SCISEARCH, BIOSIS, USPATFULL' ENTERED AT 22:17:02
     ON 19 MAY 2000
L51
            141 S L10 AND (WELL (2A) PLATE)
L52
            61 S L10 AND ((WELL (2A) PLATE) (P) (DERIV? OR COAT? OR MODIF?))
L53
             13 S L52 NOT (BIOTIN? OR STREPTAVIDIN)
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FILE 'STNGUIDE' ENTERED AT 22:21:49 ON 19 MAY 2000

general services

ACCESSION NUMBER:

2000:53876 USPATFULL

TITLE:

Cellular transport detection method

INVENTOR(S):

Kauvar, Lawrence M., San Francisco, CA, United States

PATENT ASSIGNEE(S):

Trellis Bioinformatics, Inc., San Francisco, CA,

United

States (U.S. corporation)

NUMBER DATE

PATENT INFORMATION:

US 6057092 20000502

APPLICATION INFO.:

US 1998-144609 19980831 (9)

DOCUMENT TYPE:

Utility

PRIMARY EXAMINER:
ASSISTANT EXAMINER:

Saucier, Sandra E. Afremova, Vera

LEGAL REPRESENTATIVE:

Morrison & Foerster LLP

NUMBER OF CLAIMS: EXEMPLARY CLAIM: 18 1

LINE COUNT:

1 454

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM

Applications of scintillation counting incorporated into specifically designed assays have been termed "scintillation

proximity assays." These depend on the necessity for

the scintillant to be within a certain distance of a beta emitting radioactive isotope in order to emit light; the mean radiation distance of the beta emitter determines the distance required for the

scintillant

to emit detectable light. By associating the scintillant with a reagent to be tested against a labeled substance, the interaction of the substance with reagent can be assessed. Either the analyte bears a beta emitting radioisotope, or is placed in competition with a labeled form or analog of the analyte for the reagent associated with scintillant. Such assays are described generally in U.S. Pat. Nos. 4,382,074; 4,568,649; and 4,687,636. A typical approach involves a homogeneous immunoassay system wherein a scintillant is embedded in a particulate bead which is conjugated to an antibody. Substances immunoreactive with the antibody can be measured by competition with a radioactively

labeled

form of the substance or its analog for the antibody coupled to the beads; the level of light emitted by the scintillant is thus inversely proportional to the analyte in the sample.

SUMM U.S. Pat. No. 5,665,562, incorporated herein by reference, describes a scintillation based system for monitoring uptake of radioactively labeled substrates by cellular monolayers. In this macroscopic method,

modified form of a 96-well microtiter plate

is employed, whereby a region of the base portion of the wells is constructed of polystyrene containing a scintillant, such as 2-(4-t-butylphenyl)-5-(4-biphenylyl)-1-3,4-oxadiazole (2%) and 9,10-diphenylanthracene (0.5%). The plate is constructed so as to minimize or eliminate the passage of light from well to well. A monolayer of cells is **coated** in each well and the uptake of a radioactively labeled substrate is measured by the emission of light by the scintillant.

SUMM

Applying scintillation proximity assays to

a microscopic format using appropriately small amounts of sample tissue or cells and correspondingly small amounts of test compounds and other reagents permits real time observation of transport of compounds across cellular membranes and of the effect of potential enhancers or